



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA
SECOND SEMESTER EXAMINATIONS, MAY 2018

COURSE NO: GM 282
COURSE NAME: PRINCIPLES OF GIS
CLASS: GM II **TIME:** 3 HOURS

Name: _____ Index Number: _____

ANSWER QUESTION ONE AND TWO OTHERS

- Q1** a. Describe implicit and explicit data as applied in GIS and give appropriate examples. [6 marks]
b. In any GIS system describe how spatial data and non-spatial data can be represented in a relational database. [4 marks]
c. Explain Spatial and non spatial data in GIS. [4 marks]
d. Describe the conceptual perception of GIS. [6 marks]
- Q2** a. As a Geomatics Engineer describe the concepts for a weighted overlay analysis with appropriate examples. [12 marks]
b. Discuss the problems associated with overlay and indicate what you can do to overcome these problems. [6 marks]
c. State any two areas of GIS that can help improve Ghana. [2 marks]
- Q3** a. Using appropriate diagrams show how buffer analysis and neighbourhood analysis (PIP and LIP) can be differentiated. [10 marks]
b. Discuss the steps to incorporate these in an overlay to support overlay analysis. [6 marks]
c. Using some basic example illustrate overlay [4 marks]
- Q4** a. Describe ways by which network analysis could be employed in solving road problems in your district. Discuss some of its impedances where possible. [12 marks]
b. Describe trend analysis and what benefits can it bring to a community. [6 marks]
c. What are the benefits of an integrated GIS. [2 marks]

Examiner: Dr E E Duncan /Assoc Prof B Kumi-Boatengi